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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,531	04/07/2004	Dean W. Rivest	OME-0017	8323
7590 09/22/2004 CANTOR COLBURN LLP 55 Griffin Road South Bloomfield, CT 06002			EXAMINER HOOK, JAMES F	
			ART UNIT 3752	PAPER NUMBER

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/820,531

Applicant(s)

RIVEST, DEAN W.

Examiner

James F. Hook

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Stieler. The patent to Stieler discloses the recited tubing assembly comprising an inner conductive layer 34 which can be convoluted or corrugated to have peaks and valleys, an outer layer 38 made of a conductive polymer jacket disposed along a length of the corrugated tubing layer 34, the corrugations are annular, the jacket is a thermoplastic polymer, and a fitting 41 can be provided on the ends.

Claims 1, 2, 4, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Noone (184). The patent to Noone discloses the recited tubing assembly comprising an inner conductive layer 14 which can be convoluted or corrugated to have peaks and valleys, an outer layer 16 made of a conductive polymer jacket disposed along a length of the corrugated tubing layer 34, the corrugations are annular, the jacket is a thermoplastic polymer, and a fitting inherently can be provided on the ends in order to connect such tubing to fuel components to allow such to be used as a fuel line.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noone (184) or Stieler. The patents to Noone and Stieler disclose all of the recited structure with the exception of specific properties of the materials used, however such is considered to be merely a choice of mechanical expedients where one skilled in the art could use routine experimentation to arrive at optimum values for the materials used based upon the environment in which it is intended to be employed. It would have been obvious to one skilled in the art to modify the material of Noone or Stieler to meet specific tensile strengths, elongation, flexural modulus', and resistivities as such is merely a choice of mechanical expedients.

Claims 3, 6, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noone (184) or Stieler in view of Crisman. The patents to Noone and Stieler disclose all of the recited structure with the exception of substantially filling the valleys, forming the corrugations as helical corrugations, and using polyethylene for the outer layer. The patent to Crisman discloses that it is old and well known to make hoses with conductive layers, where various thermoplastics can be used including polyethylene, that the inner conduit 31 can be formed with corrugations which are either annular or helical, and where the outer layer 32 can substantially fill the valley to provide the outer

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layer with a smooth outer surface. It would have been obvious to one skilled in the art to modify the inner layer of Noone and Stieler to be formed of any type of corrugation including helical as such is a known equivalent type of corrugation used in inner layers of tubes, and to modify the outer layer to be formed from polyethylene as such is a known equivalent material used for outer protective layers where the outer layer can be formed to substantially fill the valleys of the corrugations to provide a smooth outer surface as suggested by Crisman as such would provide for a tube that would be easier to keep clean.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noone (184) in view of Ostrander. The patent to Noone discloses all of the recited structure with the exception of forming the outer layer of polyether and polyurethane. The patent to Ostrander discloses that it is old and well known to form corrugated pipes with inner and outer layers using various types of materials which can be provided with conductive material such as polyether and polyurethane mixes. It would have been obvious to one skilled in the art to modify the outer layer of Noone to be formed of polyether and polyurethane mixes as such is a known equivalent material used to form layers of a conductive hose as suggested by Ostrander where such material can be chosen to meet environmental needs of the user to allow the hose to perform better and save money due to lengthened life.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Malcarne, Jr., Quigley, Koike, Vilkaitis, Kutnyak,

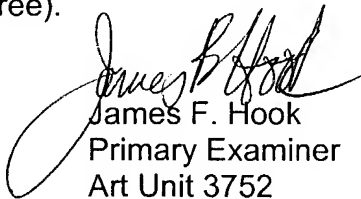
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Gerth, Moreiras, Ishida, and Ito disclosing state of the art multilayer and corrugated tubing some with conductive layers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (703) 308-2913 until mid November and (571) 272-4903 thereafter, where the examiners art unit number will also change to 3754 on October 1, 2004, please note these changes and address any correspondence to the same examiner at the new art unit 3754. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on (703) 308-2087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


James F. Hook
Primary Examiner
Art Unit 3752

JFH